

AMENDMENTS TO THE CLAIMS

Claims 1-23 (Cancelled)

24. (New) A rolling screw device with a smaller advance per turn than the pitch of the threading which comprises:

a main screw provided with external threads said main screw being movable within a sleeve provided with at least one bearing having a threaded hole forming threads of one or more female screws which are adapted to form a threaded coupling with the external threads of the main screw, the nominal diameter of the sleeve and associated bearings being greater than that of the main screw, the axis of the female screw being parallel to but not coinciding with the axis of the main screw, and means operatively associated with the screw and the female screw to provide synchronized movement therebetween.

25. (New) The rolling screw device of claim 24, wherein the bearing having a threaded hole is mounted eccentrically with respect to the axis of the screw.

26. (New) The rolling screw of claim 24, wherein the threads of the screw and the threads of the female screw engage each other along a generatrix of the threaded coupling and not on the entire surface thereof.

27. (New) The rolling screw device of claim 24, wherein due to the differences in diameter, the angular speed of the screw is greater than the angular speed of the female screw whereby one turn of the screw corresponds to less than one complete angular rotation of the female screw.

28. (New) The screw device of claim 24, wherein guide bearings are disposed in the sleeve in close proximity to the screw.

29. (New) The rolling screw of claim 24 wherein a plurality of female screws are contained within the sleeve.
30. (New) The rolling screw of claims 29, wherein the female screws comprise internally threaded bushes fitted in the hole of at least one of the bearings contained in the sleeve.
31. (New) The rolling screw of claim 29, wherein the female screws have diameters of different values.
32. (New) The rolling screw of claim 29, wherein the female screws can be placed into a condition not in contact with the screw, independently from each other.
33. (New) The rolling screw of claim 31, wherein only a selected female screw can be placed in contact with the screw to obtain an advance per turn of the screw dependent upon the diameter of the specific female screw being used.
34. (New) The rolling screw or claim 29, wherein the diameters of each of the female screws have a value whereby when all of the female screws are in a condition of detachment from the screw, the screw can slide freely on the bearings.
35. (New) The rolling screw of claim 24, wherein one or more female screws are replaced with externally threaded bearings, said bearings being able to be placed in contact with the screw to obtain advances per turn of a greater value with respect to the pitch of the threading of the screw itself.
36. (New) A rolling screw device with a smaller advance per turn than the pitch of the threading which comprises a threaded coupling between a main screw which turns inside one or more female screws disposed in a single body or sleeve, where the pitch of the thread of the female screw is equal to that of the main screw and where the nominal diameter of the female

screw is greater than that of the main screw, said one or more female screws having a threaded hole and an axis which is parallel to but not coinciding with the axis of the screw whereby selective screw engagement between the one or more female screws and the screw is achieved independently from each other, and means operatively associated with the screw and the female screw to provide synchronized movement therebetween.

37. (New) The rolling screw of claim 36, wherein said body or sleeve contains bearings which are adapted to bear both radial and axial loads.

38. (New) The rolling screw device of claim 36, wherein a plurality of female screws are provided for selective engagement with the main screw whereby depending on which female screw is in contact with the main screw, different advances per turn of the main screw are obtained.

39. (New) The rolling screw device of claim 38, wherein the female screws are not arranged coaxial to each other.

40. (New) The rolling screw device of claim 38, wherein the sleeve comprises two half shells containing connecting members for joining the two half shells together, and guide bearings are disposed within the sleeve, said main screw being adapted to slide on said guide bearings.

41. (New) The rolling screw device of claim 36, wherein said synchronized movement is achieved by an idle main screw and transmission means for selectively placing the one or more female screw in the rotation relative to the main screw.

42. (New) The rolling screw device of claim 41, wherein the enter sleeve is placed into rotation.

43. (New) The rolling screw device of claim 41, wherein the transmission means is belts and gears.

44. (New) The rolling screw device of claim 36 wherein a preload is applied to the main screw to achieve an extremely precise movement and positioning of the main screw and the one or more female screws.

45. (New) The rolling screw device of claim 37 which further comprises a locking/unlocking system for the rotation of the bearings of the female screws to obtain, when the aforementioned bearings are locked, an advance per turn of the main screw equal to the value of the pitch of its thread.

46. (New) The rolling screw device of claim 37 which further comprises a locking/unlocking system for the rotation of the main screw to obtain, when it is locked, an advance per turn of the sleeve equal to the pitch of the thread of the main screw.

47. (New) The rolling screw device of claim 36 which defines a "free-wheel" device which prevents the rotation of the bearings of the female screws in one of the two directions.

48. (New) The rolling screw device of claim 36 which defines a "free-wheel" device which prevents the rotation of the main screw in one of two directions.

49. (New) The rolling screw device of claim 38, wherein the female screws have diameters of different values.

50. (New) The rolling screw device of claim 38, wherein the plurality of female screws have different diameters but only one is selected to remain in contact with the main screw so as to obtain an advance per turn of the main screw based upon the diameter of the selected female screw.

51. (New) The device of claim 38, wherein the diameters of each of the female screws have a value such that when all of the female screws are in a condition of detachment from the main screw, the main screw can slide freely on guide bearings disposed in the sleeve.

52. (New) The rolling screw device of claim 38, wherein the female screws are provided with circumferential throats and with an advance per turn equal to the threading value of the main screw.

53. (New) The rolling screw device of claim 36, wherein the main screw is provided with circumferential throats with an advance per turn equal to the threading pitch of the female screw.

54. (New) The rolling screw device of claim 36, wherein one or more female screws are replaced with externally threaded bearings.

55. (New) The rolling screw device of claim 54, wherein the externally threaded bearings are adapted to be placed into contact with the main screw to obtain advances per turn of a greater value with respect to the pitch of the threading of the main screw.

56. (New) The rolling screw device of claim 36, wherein the synchronization is actuated through the use of a motor reducer with a low transmission ratio and is therefore reversible and in situations of failure or lack of energy, can be actuated manually.

57. (New) The rolling screw device of claim 24, wherein the thread of the female screw can be brought into a condition of contact and non-contact with the thread of the main screw.